

ABSTRACT OF THE DISCLOSURE

In a heterojunction field effect type semiconductor device, a channel layer is formed over a GaAs substrate, and
5 a first semiconductor layer including no aluminum is formed over the channel layer. First and second cap layers of a first conductivity type are formed on the first semiconductor layer, to create a recess on the first semiconductor layer. First and second ohmic electrodes are formed on the first and second cap
10 layers, respectively. A second semiconductor layer of a second conductivity type is formed on the first semiconductor layer within the recess, and the semiconductor layer is isolated from the first and second cap layers. A gate electrode is formed on the second semiconductor layer.